



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,978	10/31/2001	Mark D. Markel	A-70829/ENB/VEJ	4719

23715 7590 03/12/2003

JOEL R. PETROW  
SMITH & NEPHEW, INC.  
1450 BROOKS ROAD  
MEMPHIS, TN 38116

EXAMINER

ROANE, AARON F

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/996,978

Applicant(s)

MARKEL, MARK D. *MA*

Examiner

Aaron Roane

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Lax et al. (USPN 5,458,596).

Regarding claims 1, 8 and 12, Lax et al. disclose a method of tissue treatment comprising providing a warm irrigating solution, delivering the warm irrigating solution into the arthroscopy environment (see col. 8, lines 19-64. Although, Lax et al. recite a “cooled” solution, the temperature range is that of the warmed solution of the claimed invention), introducing the distal extremity of the probe into the arthroscopic environment, positioning the electrode adjacent to the surface of the (see col. 7, lines 6-24 and figure 21) and supplying RF energy to the electrode to treat the tissue (see col. 7, lines 38-45).

Regarding claim 2, Lax et al. disclose that the solution is saline, see col. 8, lines 19-24.

Regarding claim 3, Lax et al. disclose a warmed solution temperature of 37° C, see col. 8, lines 58-64.

Regarding claim 4, Lax et al. disclose the claimed invention. Lax et al. is silent as to the tissue bath. However Applicant asserts the well known equivalence between the tissue bath heating means and "other means known in the art", see page 7, lines 23-25.

Regarding claims 5 and 6, Lax et al. disclose monitoring the temperature at the tissue by providing a temperature sensor (70) at the distal end of the probe, see col. 9, lines 39-46.

Regarding claim 7, Lax et al. further disclose modulating the amount of thermal energy supplied to the electrode in response to the temperature of the tissue, see col. 9, lines 58-62.

Regarding claims 9, 13 and 14, Lax et al. disclose a monopolar device with a electrode (14) that conducts current between itself and a return electrode (inherent and well known in the art), both electrodes are connected to an RF generator (72), see claims 1 and 9 and figures 5 and 11.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lax et al. (USPN 5,458,596) in view of Eggers et al. (USPN 5,697,882).

Regarding claims 10 and 15, Lax et al. disclose the claimed invention except for providing the return electrode at the distal extremity of the probe. Providing a bipolar electrode arrangement is well known in the art and is used in order to restrict current flow to a specific area. Furthermore Eggers et al. disclose a system and method for electrosurgical cutting and ablation and teach the use of placing the return electrode (56) at the distal extremity of the probe, see abstract figure 1. Therefore, at the time of the invention it would have been obvious to one of ordinary skill to modify the invention of Lax et al., as is well known in the art and as taught by Eggers et al. to place the return electrode (56) at the distal extremity of the probe in order to restrict current flow to a specific area.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lax et al. (USPN 5,458,596) and in further view of Willink et al. (USPN 6,254,600 B1).

Regarding claim 11, Lax et al. disclose the claimed invention except using the method to treat fibrillated cartilage surface. Willink et al. disclose a system for tissue ablation and aspiration and teach the treatment of fibrillated cartilage surfaces in order to treat cartilage defects, see col. 37, lines 19-54. Therefore at the time of the invention it would

have been obvious to one of ordinary skill in the art to modify the invention of Lax et al., as taught by Willink et al. to treat fibrillated cartilage surfaces in order to treat cartilage defects.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Roane whose telephone number is (703) 305-7377. The examiner can normally be reached on 9am - 5pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (703) 308-0994. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

A.R. *A.R.*  
March 10, 2003

*Roy D. Gibson*  
**ROY D. GIBSON**  
**PRIMARY EXAMINER**